

PRE - EXTRACTION 1:2500 (H) 1:1000 (V)

ARCHAEOLOGICAL RECOMMENDATIONS:

- PRIOR TO SITE PREPARATION, THE TWO ABORIGINAL CAMPsites SITES IDENTIFIED BY THE STAGE 3 ARCHAEOLOGICAL ASSESSMENT AS LEWIS I (BCGW-91) AND LEWIS II (BCGW-91) WILL BE EXCAVATED PER THE METHODOLOGY DESCRIBED IN THE CULTURAL HERITAGE REPORT BY ARCHAEOLOGICAL ASSESSMENT LTD. (2013) BY A LICENSED ARCHAEOLOGIST AS PER SECTION 48 AND 69 OF THE CULTURAL HERITAGE ACT.
- UPON COMPLETION OF THE ARCHAEOLOGICAL WORK, A REPORT MUST BE SUBMITTED TO THE MINISTRY OF HERITAGE, SPORT, TOURISM AND CULTURE INDUSTRY BY A LICENSED ARCHAEOLOGIST STATING THAT THE SITE HAS NO FURTHER CULTURAL HERITAGE VALUE OR INTEREST, AND THE REPORT MUST BE FILED IN THE ONTARIO PUBLIC REGISTER OF ARCHAEOLOGY REPORTS REFERRED TO IN SECTION 65.1 OF THE ONTARIO HERITAGE ACT.
- SHOULD PREVIOUSLY UNDOCUMENTED ARCHAEOLOGICAL RESOURCES BE DISCOVERED, THEY MAY BE A NEW ARCHAEOLOGICAL SITE AND THEREFORE SUBJECT TO SECTION 48(1) OF THE ONTARIO HERITAGE ACT. THE PROPONENT OR PERSON DISCOVERING THE ARCHAEOLOGICAL RESOURCES MUST CEASE ALTERATION OF THE SITE IMMEDIATELY AND ENGAGE A LICENSED CONSULTANT ARCHAEOLOGIST TO CARRY OUT ARCHAEOLOGICAL FIELDWORK, IN COMPLIANCE WITH SECTION 48 (1) OF THE ONTARIO HERITAGE ACT.
- THE CEMETERIES ACT, R.S.O. 1990 C.C.4 AND THE FUNERAL, BURIAL AND CREMATION SERVICES ACT, 2002, S.O. 2002, C.33 (WHEN PROCLAIMED IN FORCE) REQUIRE THAT ANY PERSON DISCOVERING HUMAN REMAINS MUST NOTIFY THE POLICE OR CORONER AND THE REGISTRAR OF CEMETERIES AT THE MINISTRY OF CONSUMER SERVICES.
- ARCHAEOLOGICAL SITES RECOMMENDED FOR FURTHER ARCHAEOLOGICAL FIELDWORK OR PROTECTION REMAIN SUBJECT TO SECTION 48 (1) OF THE ONTARIO HERITAGE ACT AND MAY NOT BE ALTERED, OR HAVE ARTIFACTS REMOVED FROM THEM, EXCEPT BY A PERSON HOLDING AN ARCHAEOLOGICAL LICENSE.

HYDROGEOLOGICAL RECOMMENDATIONS:

- MANUAL WATER LEVELS WILL BE COLLECTED ON A SEASONAL BASIS, THREE TIMES PER YEAR, ONCE IN THE SPRING, SUMMER AND FALL, AT ON-SITE MONITORING WELLS.
- THE ANNUAL GROUNDWATER MONITORING PROGRAM WILL EXTEND THROUGHOUT THE LIFE OF THE OPERATION TO MONITOR THE ELEVATION OF THE WATER TABLE OVER TIME.
- THE RESULTS OF THE MONITORING WILL BE RETAINED ON-FILE BY THE LICENSEE IN THE EVENT THIS INFORMATION IS REQUESTED BY AGENCIES SUCH AS THE NDMR & MECP.
- MONITORING WELLS THAT MAY BE DESTROYED BY EXTRACTION ACTIVITIES WILL BE DECOMMISSIONED ACCORDING TO THE WELLS REGULATION (O. REG. 903) AND SUBSEQUENTLY REPLACED.
- THE LICENSEE WILL OPERATE IN ACCORDANCE WITH THE LEWIS PIT SPILL PLAN. A QUALIFIED PERSON WILL BE RETAINED, IN THE UNLIKELY EVENT OF A SPILL.

NATURAL ENVIRONMENT RECOMMENDATIONS:

- REFORESTATION AREAS AS PART OF SITE REHABILITATION SHALL BE COMPLETED WITH NATIVE SPECIES, INCLUDING: HARD MAPLE, RED OAK, BALSAW FIR, BLACK CHERRY AND WHITE BIRCH, AND SHELTER SPECIES SUCH AS TREMBLING ASPEN AND LARGE-TOOTHED ASPEN. SPACING IN REFORESTATION AREAS SHALL BE 5 METERS-ON-CENTER. GROUNDCOVER SHALL BE SEADED WITH A NATIVE WOODLAND SEED MIX AND ANNUAL RYE GRASS NURSE CROP.
- NO CLEARING OF VEGETATION BETWEEN APRIL 5TH AND AUGUST 27TH TO COINCIDE WITH ENVIRONMENT CANADA'S GENERAL NESTING PERIODS FOR MIGRATORY BIRDS.
- NO CLEARING OF VEGETATION BETWEEN APRIL 1ST AND OCTOBER 31ST DURING THE ACTIVE SEASON FOR BAT SPECIES.
- PRIOR TO EXTRACTION OF EACH PHASE, A SURVEY FOR THE BUTTERNUT TREE (JUGLANS CINEREA) SHALL BE COMPLETED BETWEEN JUNE 1ST AND AUGUST 1ST. IF BUTTERNUT IS PRESENT IN THAT PHASE, AN ASSESSMENT SHALL BE COMPLETED BY A QUALIFIED PERSON AND SUBMITTED TO THE MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS (MECP). IF THE ASSESSMENT IDENTIFIES THE PRESENCE A CATEGORY 2 OR 3 BUTTERNUT TREE, THE ACTIVITY SHALL BE REGISTERED WITH MECP OR A PERMIT OBTAINED UNDER THE ENDANGERED SPECIES ACT (ESA) PRIOR TO ANY REMOVAL OF A BUTTERNUT TREE(S) OR SUITABLE HABITAT WITHIN 50 METRES.
- PRIOR TO EXTRACTION OF EACH PHASE, A SCREENING FOR SPECIES LISTED AS THREATENED OR ENDANGERED IN THE ENDANGERED SPECIES ACT (ESA) SHALL BE COMPLETED BY A QUALIFIED PERSON. IF A SPECIES IS FOUND, ANY REMOVAL OF HABITAT FOR THAT SPECIES SHALL BE DONE IN COMPLIANCE WITH REQUIREMENTS OF THE ESA.

NOISE MITIGATION MEASURES RECOMMENDATIONS:

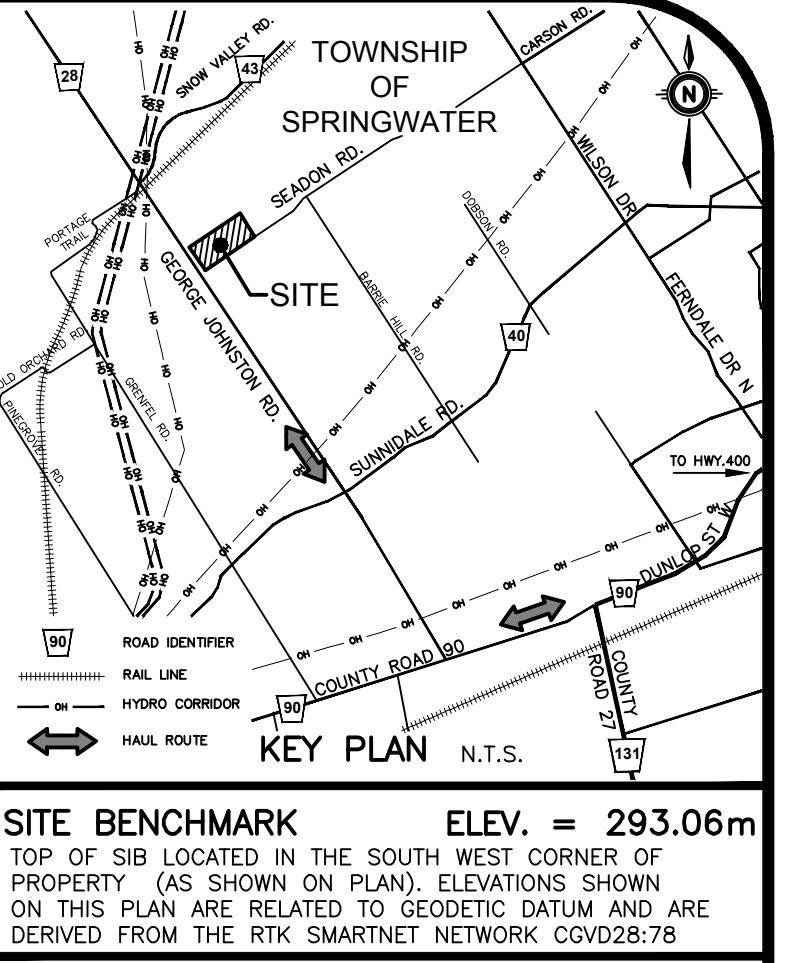
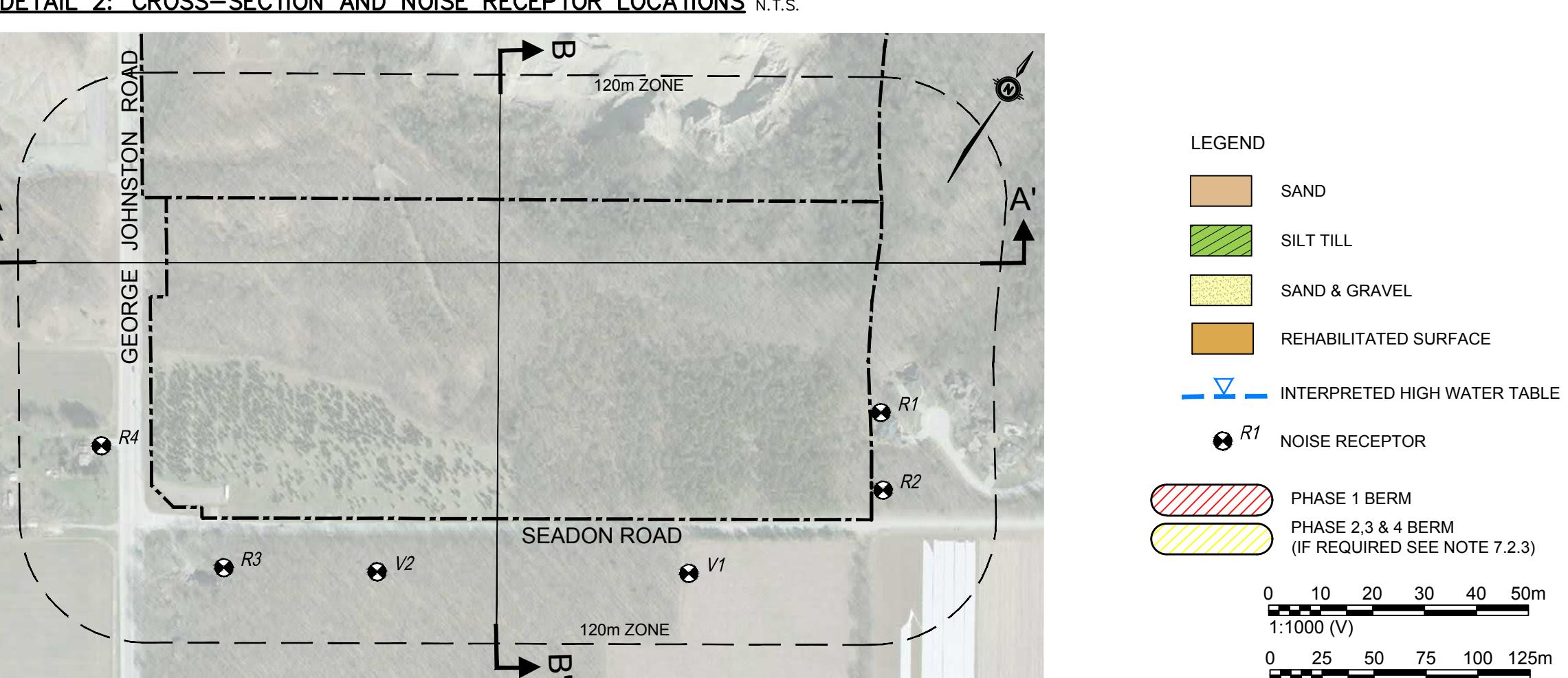
- EXTRACTION AND PROCESSING OPERATIONS SHOULD ONLY BE DONE DURING THE DAYTIME (I.E. 0700 TO 1900 HOURS) PERIOD. SHIPPING OF MATERIAL OFF-SITE WILL BE CONSISTENT WITH THE EXISTING LEWIS PIT (LICENCE No. 3560).
- THE SOUND EMISSION LEVEL FOR ALL PIECES OF EQUIPMENT USED FOR CONSTRUCTION ACTIVITIES INCLUDING SITE PREPARATION AND REHABILITATION MUST COMPLY WITH THE LIMITS OUTLINED IN MECP PUBLICATION NPC-115, "CONSTRUCTION EQUIPMENT".
- THE AMOUNT AND SOUND EMISSION LEVELS FROM THE EQUIPMENT OPERATING ON SITE MUST NOT EXCEED THOSE OUTLINED IN TABLE 1 (SHOWN BELOW).

TABLE 1: EQUIPMENT LIMITS

TYPE	MAXIMUM NUMBER	MAXIMUM SOUND EMISSION LEVEL (DBA)
FRONT END LOADER	3	74 @ 15 M
CRUSHER	2	81 @ 15 M
SCREENING PLANT	3	81 @ 15 M
STACKER	2	71 @ 15 M
ON-SITE HAUL TRUCKS	2	81 @ 15 M

- TO ENSURE NOISE EMISSIONS COMPLY WITH THE RECOMMENDATIONS OF THE NOISE REPORT, SOUND EMISSION LEVELS FROM EQUIPMENT TO BE USED ON SITE TO BE MEASURED TO ENSURE THEY DO NOT EXCEED THE LEVELS OUTLINED HEREIN (TABLE 1 - ABOVE) OR, FOR EQUIPMENT BROUGHT TO THE SITE ON AN AS-NEEDED BASIS, THEY HAVE APPROPRIATE C OF A'S OR ECA'S. NOTE THAT MOBILE EQUIPMENT ECA'S IMPLY THAT MEASUREMENTS OF THESE WOULD HAVE BEEN COMPLETED PRIOR TO APPROVAL. IF NEW OR OTHER EQUIPMENT IS BROUGHT TO THE SITE TO REPLACE AN EXISTING PIECE OF EQUIPMENT, ITS SOUND EMISSION LEVELS SHOULD BE CONFIRMED PRIOR TO IT OPERATING ON THE SITE.
- THE DEPTH OF THE FIRST LIFT SHOULD BE A MINIMUM OF 8.0m.
- PRIOR TO EXTRACTION, ALL TOPSOIL AND SUBSOIL SHALL BE STRIPPED AND STORED SEPARATELY IN STOCKPILES OR BERMS ALONG THE SOUTH, EAST AND WEST BOUNDARIES. THIS TOPSOIL AND SUBSOIL IS TO BE USED TO REHABILITATE THE PIT.
- THE FOLLOWING SOUND BARRIERS ARE RECOMMENDED:
 - PRIOR TO PHASE 1 EXTRACTION (SEE DETAIL 4):
 1. A 6.0m HIGH SOUND BARRIER AT THE EASTERN BOUNDARY OF THE LICENSED AREA;
 2. A 8.0m TO 8.5m HIGH SOUND BARRIER AT THE WESTERN BOUNDARY OF THE LICENSED AREA; AND
 3. A 6.0m HIGH SOUND BARRIER AT THE WESTERN PORTION OF THE SOUTHERN BOUNDARY OF THE LICENSED AREA.
 - PRIOR TO PHASE 2 EXTRACTION (SEE DETAIL 5):
 1. INCREASE THE HEIGHT OF THE EASTERN BOUNDARY SOUND BARRIER TO 7.0m;
 2. RETAIN THE HEIGHT OF THE 8.0 TO 8.5m HIGH BARRIER ALONG THE WESTERN BOUNDARY; AND
 3. RETAIN THE HEIGHT OF THE 6.0m HIGH SOUND BARRIER ALONG THE WESTERN PORTION OF THE SOUTHERN BOUNDARY. IF DWELLINGS OR OTHER SENSITIVE USES ARE BUILT AND OCCUPIED ON THE NEIGHBOURING LANDS TO THE SOUTH, THE 6.0m HIGH SOUND BARRIER MUST EXTEND ALONG THE ENTIRE SOUTHERN BOUNDARY OF THE LICENSED AREA.
 - PRIOR TO PHASE 3 AND 4 EXTRACTION (SEE DETAIL 6):
 1. RETAIN THE SOUND BARRIERS REQUIRED FOR PHASE 2.
- DURING EXTRACTION IN PHASES 1 AND 2, PROCESSING EQUIPMENT AND LOADING OF MATERIAL ONTO SHIPPING TRUCKS MUST BE NO MORE THAN 30m NORTH OF THE EXTRACTION FACE. DURING EXTRACTION IN PHASES 3 AND 4, PROCESSING AND LOADING OF MATERIAL ONTO SHIPPING TRUCKS MUST BE DONE AT THE BOTTOM ELEVATION WITHIN THE EXISTING PIT.
- AN OFF-SITE NOISE AUDIT SHOULD BE COMPLETED WITHIN 6 MONTHS OF THE START OF EXTRACTION IN THE EXPANSION AREA WHILE PROCESSING OPERATIONS ARE BEING DONE ON THE SITE TO CONFIRM THE MECP NOISE GUIDELINE LIMITS ARE NOT EXCEEDED. THE AUDIT MUST BE DONE BY A QUALIFIED ACOUSTICAL ENGINEER.
- IF ALTERNATE NOISE MITIGATION MEASURES ARE TO BE IMPLEMENTED, THEY ARE TO BE REVIEWED AND APPROVED BY A QUALIFIED ACOUSTICAL CONSULTANT TO ENSURE THE MECP NOISE GUIDELINE LIMITS WILL NOT BE EXCEEDED.

DETAIL 2: CROSS-SECTION AND NOISE RECEPTOR LOCATIONS N.T.S.



I ACKNOWLEDGE AND SHALL CARRY ON THE OPERATION OF THIS SITE IN ACCORDANCE WITH THE SITE PLAN UPON WHICH MY LICENSE IS BASED.

March 16, 2022

David W. Kennedy

DATE

SITE PLANS APPROVED BY:

MINISTRY OF NORTHERN DEVELOPMENT, MINES, NATURAL RESOURCES AND FORESTRY

DECLARATION OF PURPOSE

THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENSE PIT ABOVE WATER.

SITE PLAN VARIATIONS

8. 7. 6. 5. 4. 3. 2. 1. Zero setback along North boundary Licensee owns abutting lands 0.13(1)(i). No. V A R I A T I O N No. O.Reg. Section

SITE PLAN AMENDMENTS

8. 7. 6. 5. 4. 3. 2. 1. No. R E V I S I O N BY YYY-MM-DD

MTE
Engineers, Scientists, Surveyors

519-743-6500

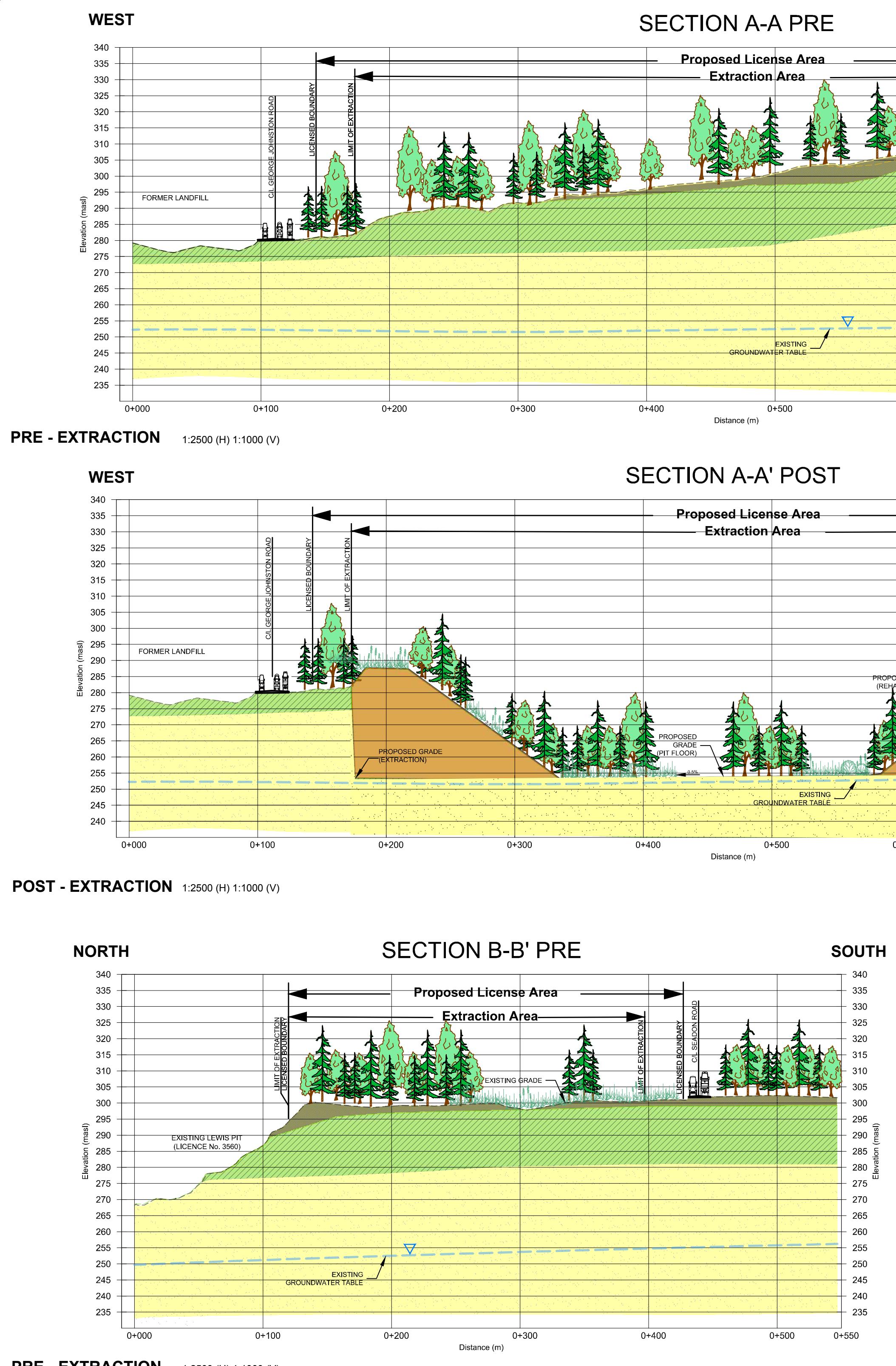
David W. Kennedy

CLIENT
GALIBIER MATERIALS INC.

151 Whitehall Drive Markham, ON
PROJECT
LEWIS PIT EXPANSION
WEST 1/2 OF LOT 15, CONCESSION 9,
TOWNSHIP OF SPRINGWATER (FORMERLY VESPA TOWNSHIP)
COUNTY OF SIMCOE, ONTARIO

DRAWING
CROSS SECTIONS AND DETAILS PLAN

Project Manager J.FLANAGAN Project No. 40318-400
Design By JBF Checked By CJC
Drawn By WSS Checked By JBF
Surveyed By J.D.BARNES Drawing No. AR.14
Date MARCH 2022 Scale AS SHOWN
Sheet 4 of 4



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